

EXHIBIT E

Expert Report of Anthony E. Fairfax on
Rebuttal of Dr. Michael Barber's Response Report on
Jefferson County, AL Commissioner Districts

April 26, 2024

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I. Introduction

1. This report provides my responses and opinions regarding the April 12, 2024 expert report of Dr. Michael Barber.

II. Preliminary Discussion

2. Dr. Barber uses a numbering system on his maps from the 2023 precincts and not the name of the precincts. These precincts differ from the 2020 precincts available at the time of the Jefferson County Commission redistricting effort. The 2023 precincts incorporate the splits of the 2020 precincts as new additional precincts. However, I have attempted to match the relevant precincts with the associated names to match my March 15, 2024 report analysis (See Appendix A).¹ Also, it is unclear how Dr. Barber obtained racial information for some of the 2023 precincts since it appears that the Daves's Redistricting application, which he states uses, incorporates the older 2020 precincts or Voting Districts (VTDs).
3. Dr. Barber also names the previously enacted plan as the 2013 Plan while I call the plan in my March 15, 2025 report, the Pre-2020 Plan. I will continue to use the Pre-2020 Plan throughout this report to represent the 2013 Plan.

¹ My analysis used the U.S. Census Bureau's 2020 Voting Districts (VTDs). The 2020 VTDs in Jefferson County, AL, are extremely similar to the 2020 precincts. The 2023 precincts are similar as well except for the incorporation of splits that occurred during the redistricting process (See Appendix A). Nonetheless, VTDs always follow census geography, whereas precincts may not in some cases.

4. Dr. Barber uses Black Voting Age Population (BVAP) throughout his report, and I used the total Black population in my analysis. The effect on any opinions and conclusions is insignificant.

III. Summary of Opinions

5. Below is a summary of my opinions and conclusions:
6. Dr. Barber's April 12, 2024 report includes using the "Least Change" approach as a rationale for maintaining the districts' Black percentages. However, in this case the Least Change approach incorporates the two significantly high majority Black districts in the 2013 Plan as a starting point. Then, population shifts are performed to maintain the district's Black percentages and retain or lower the Black percentages in the majority White districts.
7. The Precinct-by-Precinct analysis by Dr. Barber validates my analysis by presenting data that reveals that every precinct or precinct portion that was added to District 1 from the Pre-2020 Plan was majority Black. For example, the split in East Pinson Valley Center Precinct was split along racial lines that are apparent when viewed on a color thematic map.
8. Throughout Dr. Barber's report, he points to other majority Black precincts that could be added to the majority Black districts. He uses this as an explanation of the plan not being guided mostly by racial considerations. But essentially in all those instances, the Black percentage of the alternative precincts that he puts forth had a lower Black percentage than the Pre-2020 district or the split portion of the precinct that was added.

9. Dr. Barber's assertions and rationale in his report did not dissuade me from my previous conclusions. Thus, my opinions and conclusions remain that the movement of population from the Pre 2020 to the 2021 Adopted Plan displays a pattern predominated by race.

IV. Least Change Approach

10. The first portion of Dr. Barber's report correctly addresses the fact that the districts have not changed significantly from the 2013 or Pre-2020 Plan as it is named in my March 15, 2024 report. He states that the objective of the commission "was to retain the old districts to a very high degree."² His Table 6 in his April 12, 2024 report shows that the district retains between 90% and 100% of the 2013 districts. Dr. Barber also states correctly, "Therefore, any map that seeks to build the new districts by making as few changes as possible to the old districts will inherit much of that racial composition."³

11. Thus, Dr. Barber's Table 6 in his April 12, 2024 report provides additional evidence that the 2021 Adopted Plan is a "Least Change" plan, which is part of the issue. The 2021 Adopted Plan continues the percentages of two high Black population districts and three majority White districts.

12. Therefore, the least change approach established as a starting point the significantly high Black percentages of the two majority Black districts in the Pre-2020 Plan, and then population shifts were performed to maintain their Black percentages. In addition, the least

² Barber April 12, 2024 Report, Page 5.

³ Barber April 12, 2024 Report, Page 9-10.

change approach also retained the low Black percentages, or even lowered them further, in the majority White districts.

13. Finally, if the mapdrawer's objective was to continue to maintain the high Black percentages (greater than 65%) of the two majority Black districts, the least change approach was a perfect plan development technique to do so. Consequently, in this case, using the least change approach does not eliminate the plan being largely guided by racial considerations but does perpetuate any racial predominance issues that may have previously existed.

V. Split Municipalities

14. Dr. Barber states, "Despite this, the enacted map does a reasonably good job of avoiding splitting cities more than necessary." This is questionable. The 2021 Adopted Plan split 25 census places (cities, towns, and CDPs⁴) while the Pre-2020 Plan split 22. In addition, my illustrative plan split only four. When analyzing only cities, towns, and villages, the 2021 Adopted Plan split 22, while the Pre-2020 Plan split 19, and my illustrative plan continues to split only four.

15. Even though there were apparent differences in the number of split municipalities, the Pre-2020 and 2021 Enacted Plans were shown to be similarly compact in my March 15, 2024 report.⁵ Furthermore, although there was a substantial reduction in split municipalities in my

⁴ CDP are Census Designated Places. Although created by the U.S. Census Bureau, CDPs are usually locally defined unincorporated areas.

⁵ Fairfax March 15, 2024 Report, Page 46-47.

illustrative plan, the plan was still shown to be more compact than the Pre-2020 and 2021 Enacted Plans.

VI. District 1 Precinct by Precinct Analysis

A. Introduction

16. My original March 15, 2024 report identified multiple VTDs that were added to District 1, including Hoover Met Stadium and Baptist Church of McAdory VTDs. However, these two VTDs were merged into one precinct, Minor Fire Station (precinct 1285), in the 2020 & 2023 precinct changes. According to Dr. Barber, this consolidated precinct has a BVAP% of 50.8%.⁶

17. In Table 9 of my March 15, 2024 report, I listed both Hoover Met Stadium and Baptist Church of McAdory VTDs separately. Included in the table was the Black percentage of the Hoover Met Stadium VTD, which was 35.55%. Therefore, I viewed Hoover Met Stadium VTD as the only VTD that was added to District 1 with a Black percentage below 50%.

18. However, since the Minor Fire Station was created, which combined Hoover Met Stadium and Baptist Church of McAdory VTDs, it is now apparent that every precinct⁷ that was added to District 1 was majority Black (See Table 1). This further reinforces my opinion that race guided the plan development process.

⁶ Barber April 12, 2024, Page 15, Figure 4

⁷ Although I used VTDs, with the exception of misaligned boundaries and an occasional merged VTD, the VTDs and precincts generally follow each other's boundaries.

Table 1 – Whole and Split VTDs Added to District 1 of the Adopted 2021 Plan

VTD Name	Dist to Dist	VTD Pop	Population Shifted	Black	White	Black%	White%	Whole or Split
Minor Fire Station	3 to 1	2258	2258	1179	860	52.21%	38.09%	W
Dolomite W Field Comm Ctr	3 to 1	1922	1284	1112	105	86.60%	8.18%	S
Center Pt Comm Ctr	4 to 1	6202	6202	5015	782	80.86%	12.61%	W
East Pinson Valley Ctr	4 to 1	7835	3105	2676	304	86.18%	9.79%	S
Total to District 1		18217	12849	9982	2051	77.69%	15.96%	

Source: Pre-2020 and Adopted 2021 Plans Block Data Analysis

Note: Excludes population shifts of less than 100. W=Whole VTD, S=Split VTD

B. Dolomite W Field City Community Ctr Precinct (Precinct1365)

19. Dr. Barber states, "Furthermore, those people who reside in precinct 1365 and were moved into CD-1 are largely in Birmingham (90.6% of the population moved into CD-1 from precinct 1365), while those in precinct 1365 who remained in CD-3 are not Birmingham residents. Thus, municipality boundary considerations explain this choice better than race."⁸

20. Although the split of precinct 1365 or part of the 2020 Dolomite W Field City Community Ctr precinct tends to follow the municipality boundary, the split leaves an 86.60% BVAP in District 1, according to Dr. Barber's report.

21. Dr. Barber also states, "Furthermore, precinct 3035, which combined with part of 1365 that remained in District 3, was also substantially Black (BVAP of 64%)."⁹ Putting aside that precinct 3035 is 68.3% in Dr. Barber's Figure 4 of his April 12, 2022 report, he validates the point of my analysis. That is, except for the Minor Fire Station precinct, the precincts

⁸ Barber April 12, 2024 Page 14.

⁹ Ibid

added to District 1 had a BVAP percentage greater than the Pre-2020 Plan's District 1's Black percentage of 78% (or 76% BVAP).¹⁰ Precinct 3035 would have lowered District 1's Black percentage if added. Precinct 3035 has 4684 persons and adding the entire precinct with 68.3% BVAP would have lowered the BVAP% for District 1 (See Figure 1).

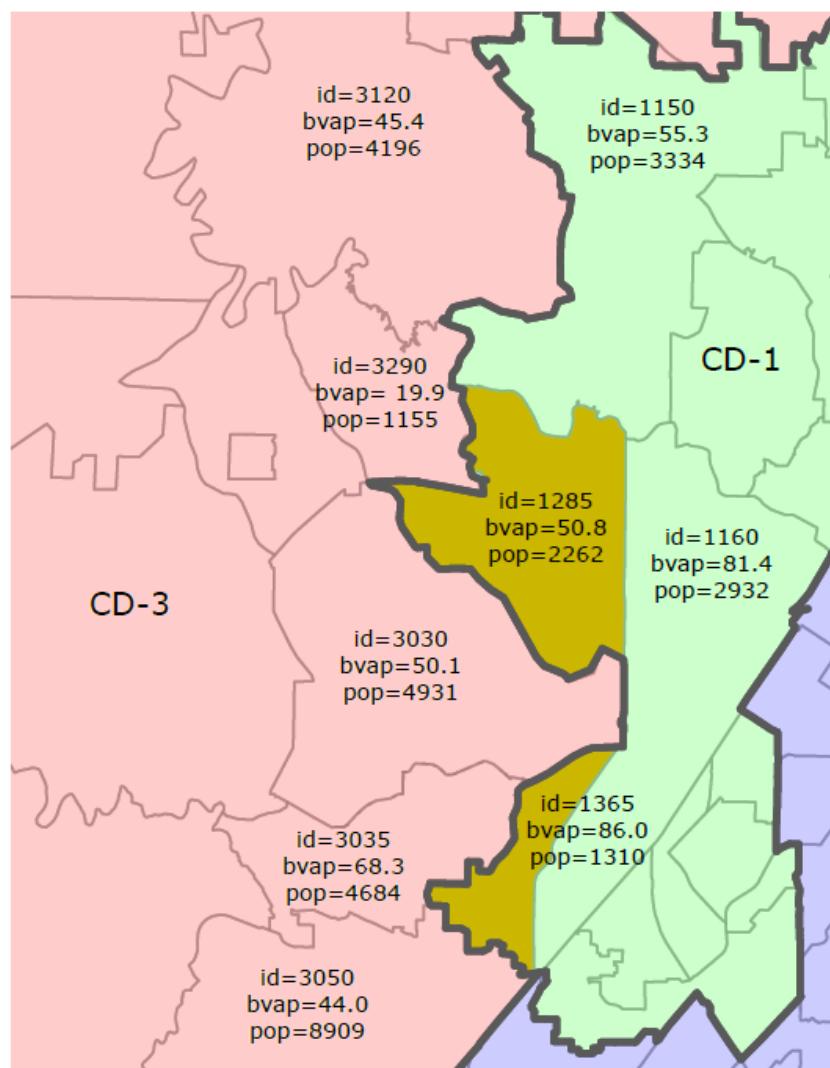


Figure 1 – Dr. Barber's April 12, 2024 Report's Figure 4

¹⁰ Obtained from Maptitude for Redistricting dataview window for the Pre-2020 Plan.

22. Also, precinct 3035 would add an excessive amount of population and would require removing population elsewhere in the district. All the other precincts that would have to be removed or reduced have greater than 80% Black population (See Table 1), Removing or reducing these greater than 80% Black population precincts would lower District 1 BVAP percentage from its 78%.

23. Finally, the map on page 15 of Dr. Barber's report shows that all the adjacent precincts have a lower BVAP% than District 1. The BVAP percentages on Dr. Barber's maps range from 19.9%, 44.0%, 45.4%, 50.1%, and 68.3%. Each one of these has a lower BVAP% than Dolomite W Field City Community Ctr precinct and District 1's approximate percentage of 78%. Lastly, the final district configuration, even with the lower BVAP precinct 1285 added, summed together to add 77.69% Black population which was adequate to maintain District 1 at 78% (See Table 1).

C. East Pinson Valley Center Precinct

24. Dr. Barber states that Figure 6 of his April 12, 2024 report shows the boundaries of precinct 1065 and other neighboring precincts that alternatively “could” have been added from District 4 to District 1 to equalize the population. A copy of Dr. Barber's Figure 6 in his report is shown in Figure 2 below. Dr. Barber states, “Thus, any choice of precincts in this area would move substantially Black populations from CD-4 to CD-1, meaning that the movement of precinct 1065 alone cannot be evidence that race predominated.”

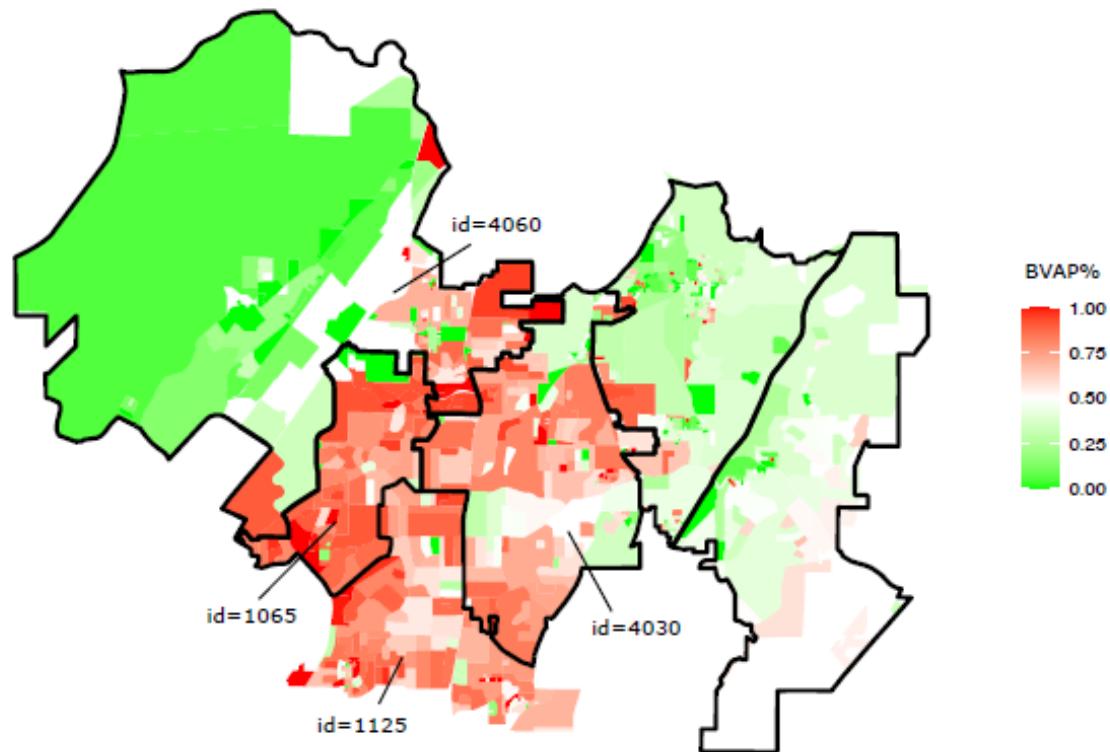


Figure 2 – Dr. Barber’s April 12, 2024 Report’s Figure 6

25. It is noticeable that precinct 4030 or 2020 Center Point 1st Baptist Church precinct could have been split to add population. This movement, however, would have added areas with a lower BVAP percentage. This can be seen by reviewing Figure 2 that shows the greenish or white colored areas in precinct 4030, which indicates BVAP percentage of 50% or lower. The white color represents census blocks that are 50% BVAP, which is somewhat visually unintuitive (See Figure 2, map legend). A more visually understandable map can be seen in my March 15, 2024 report in Figure 9, Page 36, for Center Point 1st Baptist Church precinct.

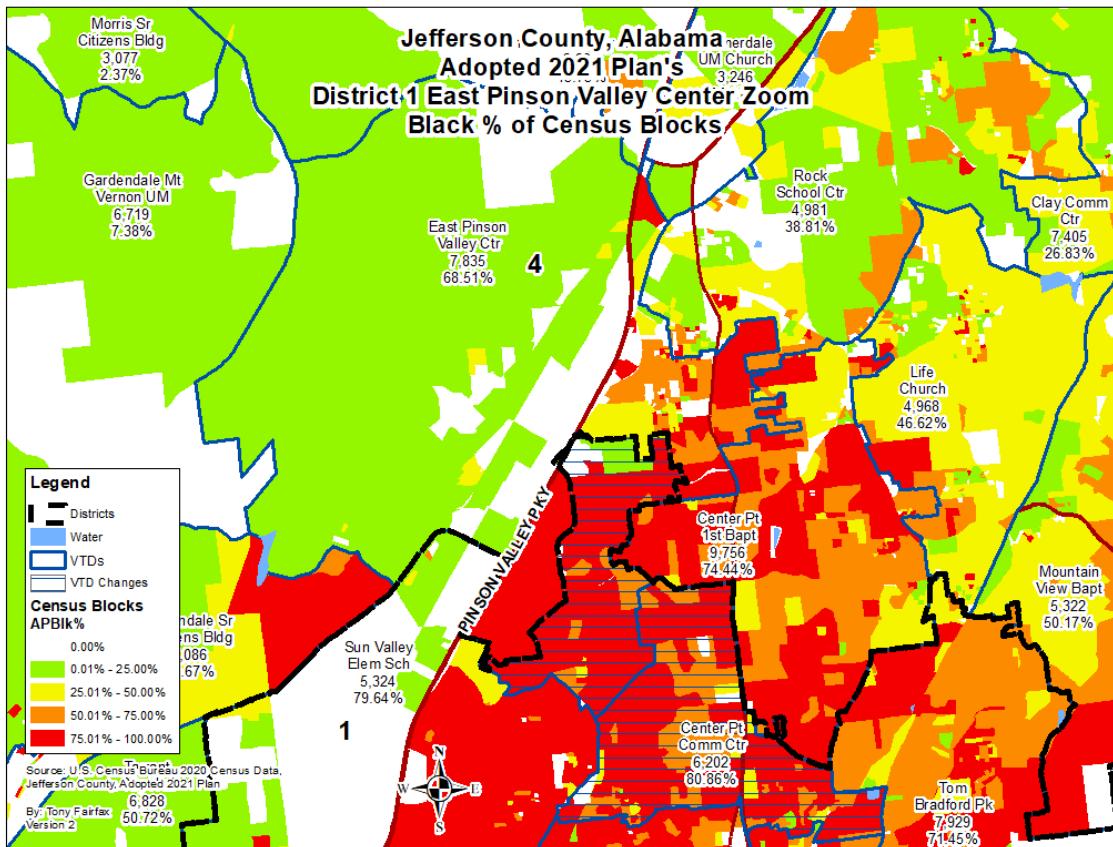


Figure 3 – Fairfax March 15, 2023 Report’s Figure 9

26. In Figure 3, census blocks representing black percentages of 25 to 50 (yellow) and 50 to 75 (orange) clearly appear in Center Point 1st Baptist Church precinct. On the other hand, the area added to District 1 in the 2020 East Pinson Valley Center (precinct 1065) contained almost all red census blocks that contain greater than 75% Black population. Thus, adding census blocks to District 1 from Center Point 1st Baptist Church or even other surrounding precincts would have lowered the Black percentage of District 1.

27. Dr. Barber's map in Figure 2 shows precisely what my analysis reveals in my March 15, 2024 report. Specifically, the borders of new precinct 1065 (or part of the 2020 East Vinson

Valley Center precinct) clearly adds an abundance of census blocks with significantly high Black percentage in the reddish color to District 1.

28. In addition, Figures 2 and 3 show the 2021 Adopted Plan boundaries of District 1 (in the black outline) clearly demarcate the boundary of the majority Black and majority White areas in the 2020 East Pinson Valley Center precinct (or new precinct 1065). Both maps present a distinct boundary of green (majority White) and red (majority Black) inside the new precinct 1065.
29. Regarding the splitting of the East Pinson Valley Center precinct or carving out of precinct 1065, Dr. Barber mentions the highway as a rationale; however, this does not dispute the evidence of the split along racial lines in the East Pinson Valley Center precinct. His argument that Commissioner Lashunda Scales' old city council district coincides somewhat with precinct 1065 also does not eliminate the clear demarcation along racial lines.
30. Ultimately, the rationale for not exceeding the district population deviation could be made for any split precinct in District 1. For instance, the Dolomite precinct was also split, with 1,284 persons added to District 1. Expanding the split area of East Pinson Valey Center precinct or precinct 1065 by 1,284 persons would have reduced the need to split and add Dolomite.
31. Furthermore, one of Dr. Barber's maps in his April 12, 2024 report, Figure 2, page 11, validates the high percentage of the Black population contained in the new precincts that are moved from District 4 to District 1. In Figure 2 of his report, the dark green precincts on the

map represent the precincts that have been added to District 1. The dark green precincts that were added to northern District 1, show high values of 77.4% and 83.6% BVAP. Once again, these precinct areas have a BVAP percentage that is higher than the Pre-2020 Plan's District 1.

32. Finally, Dr. Barber's argument for increasing Birmingham's retention in District 1 does not override the clear demarcation along racial lines. The city of Birmingham would continue to be split even with the addition that Dr. Barber mentioned.¹¹ In the end, the sum of the areas added to District 1 from the Pre-2020 plan contained 77.69% Black Population.¹²

VII. District 2 - Precinct by Precinct Analysis

A. Grant Street Baptist Precinct

33. Dr. Barber states that we failed to mention that precinct 2215 or Grant Street Baptist precinct was added, with a lower percentage of Black population added to District 2 than White. He states, "Furthermore, the plaintiffs fail to note that precinct 2215 was also moved from CD-3 to CD-2 and it has a low BVAP of only 39.6%."¹³ The fact that Grant Street Baptist precinct was added to District 2 was included in Table 10 of my March 15, 2024 report. The table also shows that all of the combined added precincts only decreased District 2's Black population by 2.83%. And, even with this reduction, the Black population remains above 65%.¹⁴

¹¹ Barber April 12, 2024 Report, Page 18.

¹² My analysis in my March 15, 2024 Report excluding the small areas below 100 persons.

¹³ Barber April 12, 2024 Report, Page 24

¹⁴ Fairfax March 15, 2024 Report, Page 24.

B. Bessemer Civic Center Precinct

34. Dr. Barber mentions the statement in my report that "Splitting Bessemer Civic Center increases the Black population contained within District 2 and decreases the Black population contained within District 3."¹⁵

35. First, the statement that I put forth is true. By splitting Bessemer Civic Center, 2,060 Black persons are added to District 2 and only 367 White persons. Dr. Barber also states, "This cuts against Mr. Fairfax's suggestion that the split of this precinct was done to increase the BVAP of CD-2 since the inclusion of the entire precinct would also have had the same effect."¹⁶

36. However, it would not have the same effect; it would have a lesser effect on the district's Black percentage. By splitting and adding the portion of Bessemer Civic Center, the percentage of the Black population is over 80%, while adding the entire precinct would add areas around 70%. Therefore, District 2's Black percentage would be lower if the entire Bessemer Civic Center precinct was included in the 2021 Adopted Plan.

C. Ross Bridge Welcome Center Precinct

37. A similar aspect exists with Dr. Barber's comment on precincts 2365 and 3160 (combined together to form the old 2020 Ross Bridge Welcome Center precinct). Even though the division of Ross Bridge Welcome Center roughly follows municipal lines, the contributions to District 2 and District 3 are along racial lines.

¹⁵ Barber April 12, 2024 Report, Page 25.

¹⁶ Ibid.

38. District 2 adds 1,092 Black persons from District 3 while adding only 760 White persons.

Thus, as Dr. Barber states, the percentage of Black population added is lower than District 2's Black Percentage.

39. On the other hand, the opposite is true. That is, a greater number of the Black population is removed from District 3 while removing much less of the White population. Specifically, the portion of Ross Bridge Welcome Center precinct left inside District 3 was only 13.21% Black.¹⁷

40. Although the Ross Bridge Welcome Center precinct move slightly lowers the Black percentage in District 2, in this case, the beneficiary is the removal of the Black population from District 3 instead of the increase in the Black percentage of District 2. District 3 in the Pre-2020 Plan had a Black percentage of around 27%, and the portion that is removed is almost twice that percentage, at 52.80%. Thus, the effect is that the White percentage in District 3 increased.

41. In addition, the 2021 Adopted Plan has 25 municipalities (Census places) that are split. Thus, splitting municipalities was not uncommon in the 2021 Adopted Plan and is not necessarily a strong rationale for splitting a single municipality along racial lines.

42. Dr. Barber's report reveals another insight into District 3's decrease in BVAP percentage. Dr. Barber states that District 3's BVAP percentage increased from 21.7% in 2010 to 28.6% in 2020, an increase of almost eight percent during the decade. The 2021 Adopted Plan lowers

¹⁷ Fairfax March 15, 2024 Report, Page 30.

District 3's BVAP percentage to 25.8%.¹⁸ The Black population throughout the decade clearly increased significantly in District 3, which could have been the motivation for shifting the population along racial lines.

VIII. District 4 - Precinct-by-Precinct Analysis

43. District 4 also presents a significant demographic shift. According to Dr. Barber, in 2010, District 4 had a BVAP percentage of 22.4%; however, in 2020, the BVAP percentage grew to 29.5%. After the 2021 Adopted Plan's redrawing, the BVAP% of District 4 was lowered to 25.7%.¹⁹ As with District 3, the Black population throughout the decade increased significantly in District 4, which could have been the motivation for shifting the population along racial lines.

IX. District 5 - Precinct-by-Precinct Analysis

44. For District 5, Dr. Barber states that the district's 2010 BVAP percentage was 11.0% while the 2020 BVAP percentage was 14.1%. As the district with the lowest Black percentage, District 5 in the 2021 Adopted Plan was slightly reduced to 14.0%.

45. Dr. Barber points out that my March 15, 2024 report mistakenly refers to District 5 as a majority Black district. He states, "The majority Black District 5 removes a population that is 16.10% Black while District 5's population of the Pre-2020 Plan is 14.70% Black."²⁰

¹⁸ Barber April 12, 2024 Report, Page 31.

¹⁹ Barber April 12, 2024 Report, Page 35-36.

²⁰ Barber April 12, 2024, Page 37.

46. Clearly, this was a typo since Tables 4 and 5 of my March 15, 2024 report and some narratives show that District 5 is not majority Black. However, the fact remains that the District 5 population that was removed has a higher Black percentage than previously existed in the district. Albeit relatively small, the removal of Black and White persons follows the same pattern as the other districts.

X. Core Retention

47. Dr. Barber discusses core retention and compares the 2021 Adopted Plan with the illustrative plans included by Bill Cooper (another plaintiff's expert) and me.²¹ He states, "In my view, these maps do not suggest whether or not the enacted map is a racial gerrymander. The reason for this is that all of the illustrative maps fail to consider the criteria that was clearly most important to the commission (after equal population and geographic contiguity), which was consideration of the previous district boundaries and retention of the population from the 2013 districts."²²

48. Core retention relates directly to the "Least Change" approach. In fact, one method of quantifying the least change approach uses reports that produce core retention percentages similar to Table 6 in Dr. Barber's March 15, 2024 report. However, similar to the least change approach, retaining the districts' configurations is part of the issue as previously mentioned in my initial section of this report. That is, the 2021 Adopted Plan continues the percentages of two high Black population districts and three lower Black populated districts.

²¹ Barber April 12, 2024, Page 42

²² Barber April 12, 2024 Report, Page 42

49. Thus, similar to the "least change" approach, a high percentage of core retention of the Pre-2020 Plan established a starting point of two significantly high majority Black districts and then performed population shifts to maintain their Black percentage. In addition, the high core retention also retained the minor Black percentages or even lowered them in the majority White districts. Therefore, in this case, using the least change approach does perpetuate any racial predominance issues that may previously exist.

50. Finally, Dr. Barber makes the following statements related to core retention, "In each case, the algorithm could not produce a representative set of maps that could perform as well as the enacted map on this metric. One reason for this is that there are simply not that many ways in which a person could draw a map that retains the 2013 district populations as well as the enacted map does." His comment on "not many ways" is incorrect.

51. There are multiple simple options of precincts that could be moved from district to district and would bring the Pre-2020 Plan's population deviation to the acceptable range (+/- 1%). However, what may be true is that there are not many ways to bring the Pre-2020 Plan's population deviation to the acceptable range if the objective is to maintain the Black percentage in two majority Black districts and maintain or lower the Black percentage in the other three districts.

XI. Conclusions

Dr. Barber's assertions and rationale in his April 12, 2024 report did not dissuade me from my previous conclusions. Thus, my opinions and conclusions remain that the movement of population from the Pre 2020 to the Adopted 2021 Plan relates to a pattern predominated by race.

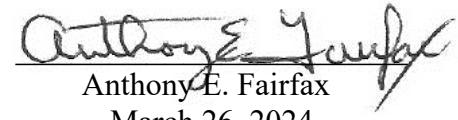
XII. Appendix

52. The following appendices are included with this report:

- Appendix A - District 1 and 2 Zoom Maps w/2020 VTD and 2023 Precinct Names

53. The findings and conclusions in this report are based upon information that has been made available to me or known by me to date. I reserve the right to modify, update, or supplement the report and analyses as additional information is made available to me.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct according to the best of my knowledge, information, and belief.


Anthony E. Fairfax
March 26, 2024